

Bio

Motivated high school sophomore with a fervent interest in computer science, robotics, and electrical engineering. Seeking opportunities to apply my technical skills, leadership acumen, and innovative mindset to further excel in these fields.

Education

Adrian Wilcox High School, Santa Clara, California

Expected Graduation: June 2026

Current GPA: 3.53

Relevant Pre Collegiate Coursework:

- **Community College:** Java, Database Management Systems, Intro to C++, Java: Data Structures and Algorithms
- **Classes:** AP Computer Science Principles (AP CSP)

United States Computing Olympiad Bronze Division Qualifier

Relevant Experience

MyTwinAI, Santa Clara, California | 2023

- **Software Development Intern**
 - Assisted in building a website with 5+ databases and 10+ collections
 - Developed a Python server using Flask to manage an AI-powered auto-gathering application using Google APIs
 - Automated the collection of user interests and data for periodic updates

PCB Kits - Educational STEM Program

- Co-Founded and led an educational STEM program that raised over \$10,000
- Developed software for microprocessor-controlled 3D printed cars with IMU integration
- Engineered Pure Pursuit algorithm using C++ to control car movement
- Created a Blockly interface for children to code and control the robot

FIRST Tech Challenge Robotics - Largest international robotics competition:

Team #20424, Co-Captain | 2022-2023

- CoLed a 12-member team to regionals, one step away from the world championships
- Wrote 5,000+ lines of code and implemented Pure Pursuit, Ramsete, spline, and motion profiling algorithms
- Utilized PID systems, OpenCV camera vision, and other technologies for precise robot control
- Raised \$2,000 in fundraising and engaged in community outreach and mentoring

Team #8872, Adrian Wilcox Highschool, Software Team Member | Present

- Created a custom command scheduler with automated task and managing thread operations
- Developed an encoder-based odometry system with Junit testing and GitHub version control
- Designed a holonomic mecanum-driven robot with custom algorithms
- Implemented Kalman filters for sensor data refinement

Hackathons:

Wilhax winner - 2022

- Created a chrome extension which could look at the product of the website you were looking at and predict how much carbon emissions it would generate to make, package, and ship to you.

Los Altos Hacks winner | Best UI - 2022

- Created an application where you can rent other people's printers to print your project. Lots of customizability and easy access.

Five Hacks - 2022

- Created a website to help people find the colleges that were right for them - calculated based off GPA, major, etc

Pioneer Hacks IV - 2023

- Created an application which allowed you to upload your document and then would have a custom AI model train itself on your document. You could then ask the AI any questions and ask it to create a quiz on it.

Hack Empowered - 2022

- Created a website where people could make events to meet up, play games, or anything.

Tiger Hacks - 2022

- An application for gamers to interact and build a community of friends

Skills

Software Development and Computer Science Experience - 5+ years

- CUDA C++, C++, C, C#, Java, Javascript, Python, Kotlin, OpenCV, Unity, React, Algorithmic design, Parallelism, OOP, Rest APIs

Engineering - 2+ years

- Arduino Environment, STM32 Microprocessors, Soldering, PID, Kalman
- CAD Software: Fusion 360, Blender, Onshape